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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,100	11/12/2003	Seymour H. Fein	SER-001	7710

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EXAMINER	
KOSAR, ANDREW D	
ART UNIT	**PAPER NUMBER**
1654	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/706,100	FEIN, SEYMOUR H.	
	Examiner	Art Unit	
	Andrew D. Kosar	1654	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 May 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3,4,6,7,9,27 and 28* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,4,6,7,9,27 and 28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 November 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on May 16, 2007 has been entered.

Response to Amendments/Arguments

Applicant's amendments and arguments filed May 16, 2007 are acknowledged. Any rejection and/or objection not specifically addressed is herein withdrawn.

The declaration of Dr. Nardi under 37 CFR 1.132 filed May 16, 2007 is insufficient to overcome the rejections of claims 1, 3, 4, 6, 7, 9, 27 and 28 under 35 USC §§ 102(b), 102(e) and 103(a) as set forth in the last Office action because the declaration provides Applicant's opinion of the prior art references, but fails to provide evidence that the prior art compositions, which anticipate the instant claims, or render the composition obvious, would not provide the biological effect claimed to the subject. Here, it is the desmopressin which provides the claimed biological effect, and any composition comprising the requisite concentration of desmopressin will anticipate the claims.

Here, it is well established that "Products of identical chemical composition can not have mutually exclusive properties," and a chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant

discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990).

Additionally, the Office does not have the facilities for examining and comparing Applicant's composition with the composition of the prior art, the burden is on applicant to show a novel or unobvious difference between the claimed product and the product of the prior art. *See In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977) and *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980), and "as a practical matter, the Patent Office is not equipped to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

In view of this, and after careful review and consideration of the declaration, the examiner is unable to see a patentable difference between the composition instantly claimed- a pharmaceutical composition comprising 0.5 ng to 20 μg desmopressin and a pharmaceutical carrier in a dosage form adapted for the various routes of administration claimed, and the compositions of the prior art, which include, but not limited to, 10 μg in an intranasal delivery device (e.g. Shapiro) or capsules containing 13 μg and capsules containing 43 μg desmopressin, a drug delivery formulation containing 18 μg/g desmopressin (e.g Yiv).

Drawings

The drawings are objected to because the submitted drawings appear to be black and white renditions/copies of color figures, particularly as evidenced by the presence of color drawings in the divisional application 11/744,615. Here, the features of the figures cannot be discerned, as the various lines are of such a style/rendering that identification of a particular line

in any figure is difficult. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Please note- color photographs and color drawings are not accepted unless a petition filed under 37 CFR 1.84(a)(2) is granted. Any such petition must be accompanied by the appropriate fee set forth in 37 CFR 1.17(h), three sets of color drawings or color photographs, as appropriate, and, unless already present, an amendment to include the following language as the first paragraph of the brief description of the drawings section of the specification:

Color photographs will be accepted if the conditions for accepting color drawings and black and white photographs have been satisfied. See 37 CFR 1.84(b)(2).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 3, 4, 6, 7, 9, 27 and 28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

MPEP § 2163 states that, "[n]ew or amended claims which introduce elements or limitations which are not supported by the as-filed disclosure violate the written description requirement. See, e.g., *In re Lμkach*, 442 F.2d 967, 169 USPQ 795 (CCPA 1971) (subgenus range was not supported by generic disclosure and specific example within the subgenus range); *In re Smith*, 458 F.2d 1389,1395, 173 USPQ 679, 683 (CCPA 1972) (a subgenus is not necessarily described by a genus encompassing it and a species upon which it reads)." Further, the MPEP states, "[w]hile there is no *in haec verba* requirement, newly added claim limitations must be supported in the specification through express, implicit, or inherent disclosure."

Here, the amendments to the claims on May 16, 2007 introduced the new matter, as the new limitation to claim 1 is not supported by explicit, implicit or inherent disclosure in the originally filed specification, claims or drawings. The newly introduced claim limitations provide for a negative proviso that the dosage form "does not produce a desmopressin plasma/serum concentration exceeding about 10 pg/ml,", however such a proviso is not found in the specification explicitly, implicity or inherently. MPEP 2173.05(i) states in part, "Any

negative limitation or exclusionary proviso must have basis in the original disclosure. If alternative elements are positively recited in the specification, they may be explicitly excluded in the claims. *See In re Johnson*, 558 F.2d 1008, 1019, 194 USPQ 187, 196 (CCPA 1977) ("[the] specification, having described the whole, necessarily described the part remaining."). See also *Ex parte Grasselli*, 231 USPQ 393 (Bd. App. 1983), *aff 'd mem.*, 738 F.2d 453 (Fed. Cir. 1984)."

Here, while there is no *in haec verba* requirement to satisfy the requirement of written description under 35 USC § 112, 1st ¶, there is no basis in the original disclosure that would lead one to conclude that Applicant had originally contemplated disclaiming compositions which cause higher serum/plasma desmopressin concentrations that equilibrate at a later time to the steady state claimed.

Claims 1, 3, 4, 6, 7, 9, 27 and 28 are rejected under 35 U.S.C. 112, first paragraph, while being enabling for desmopressin at the specifically defined and exemplified concentrations in the specification having the desired effect, does not reasonably provide enablement for all concentrations within the claimed range. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

The factors to be considered in determining whether a disclosure meets the enablement requirements of 35 U.S.C. 112, first paragraph, have been described in *In re Wands*, 858 F.2d 731, 8 USPQ2d 1400 (Fed. Cir., 1988). The court in Wands states, "Enablement is not precluded by the necessity for some experimentation, such as routine screening. However, experimentation needed to practice the invention must not be undue experimentation. The key word is 'undue', not 'experimentation'" (*Wands*, 8 USPQ2sd 1404). Clearly, enablement of a claimed invention

cannot be predicated on the basis of quantity of experimentation required to make or use the invention. "Whether undue experimentation is needed is not a single, simple factual determination, but rather is a conclusion reached by weighing many factual considerations" (*Wands*, 8 USPQ2d 1404). Among these factors are: (1) the nature of the invention; (2) the breadth of the claims; (3) the state of the prior art; (4) the predictability or unpredictability of the art; (5) the relative skill of those in the art; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary. While all of these factors are considered, a sufficient amount for a *prima facie* case is discussed below.

Here, Applicant has provided a declaration under 37 CFR § 1.132 which states that the prior art compositions would not provide the required serum/plasma desmopressin concentrations, however the examiner maintains that the prior art compositions anticipate the instant claims, particularly in view of *In re Best*, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977), *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980), *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972) and *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990), as the compositions of the prior art are within the claimed range of Applicant. Thus, in view of this dichotomy, one of skill in the art would be unduly burdened to make and use the plurality of compounds within the claimed range beyond those specifically shown in the specification to have the requisite activity, as Applicant states that the identified compositions would not function as instantly claimed even though they are within the specifically claimed range of desmopressin and are adapted for the various routes of administration as claimed.

Claim Rejections - 35USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 3, 4, 6, 7, 9, 27, and 28 remain rejected under 35 U.S.C. 102(b) as being anticipated by Yiv (US 5,707,648).

A pharmaceutical composition in a dosage form adapted for intranasal, transmucosal, transdermal, conjunctival, or intradermal administration comprising 0.5 ng to 20 μg (and narrower ranges) of desmopressin is claimed.

Yiv teaches pharmaceutical compositions comprising desmopressin within the instantly claimed amount ranges - including within gelatin filled capsules for peroral administration (please note that such capsules read upon a form adapted for "transmucosal" administration - as instantly claimed), within a drug delivery formulation as shown in Example 6c, as well as within a liquid formulation for subcutaneous injectable administration. For example, Yiv discloses capsules containing 13 μg and capsules containing 43 μg desmopressin, a drug delivery formulation containing 18 μg/g desmopressin - as shown in Example 6c, and subcutaneous injectable formulations containing 0.4 μg/ml desmopressin (so as to provide 4 μg/kg body weight thereof) - see, e.g., col 15, line 62 - col 18, line 26. Please note that the discussed desmopressin pharmaceutical compositions of the cited reference read upon a dosage form adapted for one or more of the administrative means instantly claimed (including, e.g., adapted so as to be suitable

for being added to an intranasal, transmucosal, transdermal, conjunctival, and/or intradermal formulation/patch - i.e., the desmopressin forms taught by Yiv (e.g., within a capsule, injectable, and/or other drug delivery formulation) are suitable (and thus "adapted for" use) in transmucosal, transdermal, conjunctival, and/or intradermal administrative formulations (as instantly claimed). In addition, please note the above discussed desmopressin formulations taught by Yiv would inherently provide the instantly claimed functional effect upon administration - i.e., if the desmopressin formulations taught by the Yiv were administered (or if they were administered in a form adapted for intranasal, transmucosal, transdermal, conjunctival, and/or intradermal administration), a steady plasma/serum desmopressin concentration within the approximate instantly claimed range, as well as a decrease in urine production, would inherently occur (especially given that the amounts of desmopressin within the referenced desmopressin formulations are within the instantly claimed amount ranges).

Therefore, the reference is deemed to anticipate the instantly claimed invention.

Claims 1, 3, 7, 9, 14, 27, and 28 remain rejected under 35 U.S.C. 102(e) as being anticipated by Alonso et al. (US 6,693,082).

Alonso et al. teach pharmaceutical compositions comprising desmopressin within the instantly claimed amount ranges. For example, Alonso et al. teach an intravenous pharmaceutical composition comprising a dose of lower than 20 μg (but higher than the instantly claimed lower ng amount) and pharmaceutical compositions comprising 1-2 μg/kg of body weight doses of desmopressin (dissolved in 50-100 ml saline for injectable infusion) - see, e.g., col 9, line 54 - col 10, line 45, and claims. Alonso et al. also disclose conventional prior art desmopressin pharmaceutical compositions comprising 4 μg/ml desmopressin packaged within

ampoules (see, e.g., col 8, lines 35-49). Please note that the discussed desmopressin pharmaceutical compositions of the cited reference read upon a dosage form adapted for one or more of the administrative means instantly claimed (including, e.g., adapted so as to be suitable for being added to an intranasal, transmucosal, transdermal, conjunctival, and/or intradermal formulation/patch - i.e., the desmopressin forms taught by Alonso et al. are suitable (and thus "adapted for" use) in transmucosal, transdermal, conjunctival, and/or intradermal administrative formulations (as instantly claimed). In addition, please note the above discussed desmopressin formulations taught by Alonso et al. would inherently provide the instantly claimed functional effect upon administration - i.e., if the desmopressin formulations taught by Alonso et al. were administered (or if they were administered in a form adapted for intranasal, transmucosal, transdermal, conjunctival, and/or intradermal administration), a steady plasma/serum desmopressin concentration within the approximate instantly claimed range, as well as a decrease in urine production, would inherently occur (especially given that the amounts of desmopressin within the referenced desmopressin formulations are within the instantly claimed amount ranges).

Therefore, the reference is deemed to anticipate the instant claims above.

Claims 1, 3, 7, 9, 14, 27, and 28 remain rejected under 35 U.S.C. 102(e) as being anticipated by Shapiro (US 6,746,678).

Shapiro discloses a commercial pharmaceutical composition (packaged within a nasal spray applicator) comprising desmopressin at a daily dosage concentration of 10 μg.- see, e.g., col 53, lines 9-11 (please note that such a form would inherently be in the form of a solution). Please note that the discussed desmopressin pharmaceutical composition of the cited reference

reads upon a dosage form adapted for one or more of the administrative means instantly claimed (including, e.g., adapted so as to be suitable for being added to an intranasal, transmucosal, transdermal, conjunctival, and/or intradermal formulation/patch - i.e., the desmopressin form (intranasal solution) taught by Shapiro is suitable (and thus "adapted for" use) in transmucosal, transdermal, conjunctival, and/or intradermal administrative formulations (as instantly claimed). In addition, please note the above discussed desmopressin formulation taught by Shapiro would inherently provide the instantly claimed functional effect upon administration - i.e., if the desmopressin formulation taught by Shapiro was administered (or if it was administered in a form adapted for intranasal, transmucosal, transdermal, conjunctival, and/or intradermal administration), a steady plasma/serum desmopressin concentration within the approximate instantly claimed range, as well as a decrease in urine production, would inherently occur (especially given that the amount of desmopressin within the referenced desmopressin formulations are within the instantly claimed amount ranges).

Therefore, the reference is deemed to anticipate the instant claims above.

Claims 1, 5-7, 9, 27, and 28 remain rejected under 35 U.S.C. 102(b) as being anticipated by Stanley et al. (US 4,863,737).

Stanley et al. teach a pharmaceutical composition (in the form of a lollipop, which reads upon an a dosage form "adapted for transmucosal administration" - as instantly claimed) comprising 20 μg of desmopressin therein (see, e.g., col 24, lines 40-61 - Example 20). In addition, please note the above discussed desmopressin formulation taught by Shapiro would inherently provide the instantly claimed functional effect upon administration - i.e., if the desmopressin formulation taught by Shapiro was administered (or if it was administered in a

form adapted for intranasal, transmucosal, transdermal, conjunctival, and/or intradermal administration), a steady plasma/serum desmopressin concentration within the approximate instantly claimed range, as well as a decrease in urine production, would inherently occur (especially given that the amount of desmopressin within the referenced desmopressin formulations are within the instantly claimed amount ranges).

Therefore, the reference is deemed to anticipate the instant claims above.

Claims 1, 3-5, 7, 9, 27, and 28 remain rejected under 35 U.S.C. 102(b) as being anticipated by Trinh-Trang-Tan et al. (J. Am. Soc. Nephrol., 2000 - BIOSIS Meeting Abstract), by Wolfson et al. (Am. J. Gastroenterol., 1979), by Jahr et al. (Anesthesia & Analgesia, 1992), by Dixon et al. (Br. J. Radiol., 1981), by Malan et al. (Toxicol. Methods, 1994), or by Tormey et al. (Eur. J. Internal Med., 1992).

Each of the cited references teaches pharmaceutical composition (in liquid form) comprising desmopressin within the instantly claimed amount ranges (see entire documents). Please note that each of the referenced desmopressin pharmaceutical compositions read upon a dosage form adapted for one or more of the administrative means instantly claimed (including, e.g., adapted so as to be suitable for being added to an intranasal, transmucosal, transdermal, conjunctival, and/or intradermal formulation/patch - i.e., the desmopressin forms taught by each of the cited references are suitable (and thus "adapted for" use) in transmucosal, transdermal, conjunctival, and/or intradermal administrative formulations (as instantly claimed). In addition, please note the above discussed desmopressin formulations taught by each of the cited references would inherently provide the instantly claimed functional effect upon administration - i.e., if the desmopressin formulations taught by each of the cited references were administered (or if they

were administered in a form adapted for intranasal, transmucosal, transdermal, conjunctival, and/or intradermal administration), a steady plasma/serum desmopressin concentration within the approximate instantly claimed range, as well as a decrease in urine production, would inherently occur (especially given that the amounts of desmopressin within each of the referenced desmopressin formulations are within the instantly claimed amount ranges).

Therefore, each of the cited references is deemed to anticipate the instant claims above.

With respect to each of the USC 102 rejections above - it has been previously reemphasized that, although Applicant is claiming a pharmaceutical product (not a method of its use), the administration of the cited prior art desmopressin pharmaceutical compositions (and/or the administration of the cited prior art desmopressin pharmaceutical compositions in a form adapted for intranasal, transmucosal, transdermal, conjunctival, and/or intradermal administration) would inherently provide the instantly claimed intended (post-administered) functional effect (i.e., "establish a steady plasma/serum desmopressin concentration" within the instantly claimed approximate picogram ranges as well as "decrease urine production" in an administered subject).

Applicant's previous arguments concerning the above USC 102 rejections have been carefully considered but are not deemed to be persuasive of error in the rejections. Applicant argues at the outset that the Examiner's position that the administration of the cited prior art desmopressin pharmaceutical compositions would inherently provide the instantly claimed function effect (i.e., establishing a steady state plasma/serum desmopressin concentration) is incorrect because the claims require that concentrations within this range must be established, that is, maintained for some reasonable time, and that underlying the instantly claimed invention

is the discovery that maintenance of such low doses can act effectively to interrupt urine production while decreasing or eliminating induction of hyponatremia. However, as discussed above, and previously, the claims are all drawn to a pharmaceutical product (not to a method of its use) and, as such, the prior art references (whereby the amounts of desmopressin within the cited reference pharmaceutical compositions are within the approximate amount ranges instantly claimed) read upon the instantly claimed pharmaceutical product. Throughout the reply filed 26 December 2006, Applicant repeatedly argues that the prior art references do not teach or recognize that their desmopressin pharmaceutical compositions can provide the instantly claimed *in vivo* functional effects (upon administration thereof). For example, Applicant argues that Yiv discloses an oral (capsule) dosage as well as a subcutaneous dosage, and that Alonso et al. teach an intravenous dosage; but there is no recognition in the prior art for the instantly claimed *in vivo* functional effects upon administration thereof. However, as discussed above, please note the above discussed desmopressin formulations taught by each of the cited references would inherently provide the instantly claimed functional effect upon administration - i.e., if the desmopressin formulations taught by each of the cited references were administered (or if they were administered in a form adapted for intranasal, transmucosal, transdermal, conjunctival, and/or intradermal administration), a steady plasma/serum desmopressin concentration within the approximate instantly claimed range, as well as a decrease in urine production, would inherently occur (especially given that the amounts of desmopressin within each of the referenced desmopressin formulations are within the approximate amount ranges instantly claimed).

Claim Rejections - 35 USC § 103

Claim 1, 3, 4, 6, 7, 9, 27 and 28 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Yiv (US 5,707,648) and Stanley et al. (US 4,863,737).

The Yiv reference is relied upon for the reasons discussed *supra*. Yiv further beneficially teach the use of soft or hard gelatin capsules as well as starch capsules for effective (preferably oral) administration of such protein-containing formulations, and that preparing such hard and soft gelatin capsules is routine and well known in the art (based upon the incorporation therein of prior art pharmacy text teachings). Yiv also teaches that a particularly preferable and useful protein to incorporate within such capsules is desmopressin. (see entire document including Abstract; col 3, line 46 - col 4, line 15; col 6, line 67 - col 7, line 20; col 8, lines 9-32; col 10, lines 25-36; col 14, lines 38-65).

Stanley et al. teach a pharmaceutical composition (in the form of a lollipop, which reads upon a dosage form adapted for "transmucosal administration" - as instantly claimed) comprising 20 μg of desmopressin therein (see, e.g., col 24, lines 40-61 - Example 20) as an effective oral delivery form. In addition, Stanley et al. beneficially teach employing a desmopressin dosage range of 10 to 50 μg within such solid confectionary/candy matrix orally-administered products (see, e.g., col 17, lines 21-23).

It would have been obvious to one of ordinary skill in the art to incorporate the instantly claimed amount ranges (as best understood) of desmopressin within an oral formulation including within a hard or soft gelatin or starch capsule, and/or within a solid confectionary/candy (such as a lollipop) - so as to provide effective oral delivery pharmaceutical forms thereof, based upon the overall beneficial teachings provided by the cited references, as

discussed above. The result-effective adjustment of particular conventional working conditions (e.g., employing a conventional routinely-employed rapid-dissolving gelatin or starch capsule in the pharmaceutical capsule preparations disclosed by Yiv, and/or encasing a candy including a lollipop such as disclosed by Stanley et al. within a candy wrapper and an outer box/container to protect the integrity of the candy/lollipop product as well as to provide it in a form acceptable for commercial vending sale - which would read upon "an article of manufacture" in which the desmopressin pharmaceutical composition is packaged therein) is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan. Please note that the administration of such prior art desmopressin pharmaceutical compositions would intrinsically provide the instantly claimed intended functional effect (i.e., "to establish a steady plasma/serum desmopressin concentration" in the approximate picogram ranges and "to decrease urine production" - as instantly claimed).

From the teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention. Therefore, the invention as a whole was *prima facie* obvious to one of ordinary skill in the art at the time the invention was made, as evidenced by the references, especially in the absence of evidence to the contrary.

Applicant's arguments concerning the above USC 103 rejection has been carefully considered but are not deemed to be persuasive of error in the rejection. Applicant argues that the properties and advantages of a chemical composition are part of the subject matter taken as a whole and, therefore, the pharmaceutical composition as claimed cannot fairly be rejected as obvious because it addresses and solves a problem not so much as appreciated by the applied

references, namely, how to safely interrupt urine production in adults, particularly without substantial risk of hyponatremia - which Yiv and Stanley et al. do not teach or suggest. Applicant further argues that neither reference teach or suggest the use of lower dosages, much less that such lower dosages are effective to interrupt urine production while avoiding hyponatremia. However, as discussed above, the claims are all drawn to a pharmaceutical product (not to a method of its use) and, as such, the prior art references (whereby the amounts of desmopressin within the cited reference pharmaceutical compositions are within the approximate amount ranges instantly claimed) reasonably read upon the instantly claimed pharmaceutical product. Further, as discussed above, please again note the above discussed desmopressin formulations taught and/or reasonably suggested by the cited references would intrinsically provide the instantly claimed functional effect upon administration - i.e., if the desmopressin formulations taught or reasonably suggested by the cited references were administered (or if they were administered in a form adapted for intranasal, transmucosal, transdermal, conjunctival, and/or intradermal administration), a steady plasma/serum desmopressin concentration within the approximate instantly claimed range, as well as a decrease urine production, would intrinsically occur (especially given that the amounts of desmopressin taught and/or suggested by the referenced desmopressin formulations are within the approximate amount ranges instantly claimed).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined

application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 1, 3, 4, 6, 7, 9, 27 and 28 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 19-34 of copending Application No. 11/744,615 (claim amendments filed 5/4/07). Although the conflicting claims are not identical, they are not patentably distinct from each other because 11/744,615 is drawn to the methods of using the instant compositions and one could not practice the methods without being in possession of the instantly claimed compositions of desmopressin.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew D. Kosar whose telephone number is (571)272-0913. The examiner can normally be reached on Monday - Friday 08:00 - 16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cecilia J. Tsang can be reached on (571)272-0562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

8/1/07

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